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RUEHSG/AMEMBASSY SANTIAGO
RUEHZP/AMEMBASSY PANAMA 0408

UNCLAS BOGOTA 003236

SIPDIS
PASS TO BARBARA BRERETON, OPIC

E.O. 12958: N/A
TAGS: [ECON](#) [EINV](#) [OPIC](#) [CO](#) [ENRG](#)
SUBJECT: COLOMBIA: POTENTIAL DESTINATION FOR OPIC-SUPPORTED RENEWABLE
ENERGY INVESTMENT FUND

REF: 09 STATE 95170

¶1. Summary: Colombia is a rich environment for renewable energy investment and would benefit from additional financing from the USRG Emerging Market Fund, LP. Colombia is a regional leader in the production of biofuels, specifically ethanol and biodiesel. Wind, geothermal, and hydroelectric projects are moving forward, but are at different stages. The GOC looks favorably on investments in these or new areas such as cellulosic technology. In September 2008, the United States and Colombia signed a memorandum of understanding to advance bilateral cooperation on renewable and clean energy, which provides a framework for increased cooperation. Colombia supports the Energy and Climate Partnership of the Americas and is pursuing a leadership role in promoting renewable energy throughout the region. Per reftel request, Embassy contacts were not aware of the USRG Emerging Market Fund that is managed by the US Renewables Group. End Summary.

Biofuels Growth

¶2. Colombia's goal is to provide a 20 percent mix of ethanol (E20) from sugarcane, primarily, and yucca in gasoline pumps and a 20 percent mix of biodiesel (B20) from palm oil in diesel pumps by ¶2015. Colombia already provides B5 in most of the country and B7 on the Atlantic coast. In 2010, Colombia plans to provide B10 throughout the country. With regards to ethanol, Colombia currently provides E10 in all major cities, except for the Atlantic coast, which is expected to receive E10 in 2010 once an additional ethanol refinery comes on line.

¶3. Jorge Bendeck, Executive President of the National Federation of Biofuels, told Econoffs that the short to medium term objectives are to expand sugarcane production from 250,000 to 350,000 hectares and palm production from 350,000 to over 500,000 hectares. According to Minister of Energy and Mines Hernan Martinez, Colombia's long term goal is to convert three million hectares of fallow cattle land into sugarcane and palm fields for the production of ethanol and biodiesel. (Note: second generation

biofuels, such as switchgrass, could eventually be incorporated or substitute sugarcane production. End Note.)

¶4. Colombia's aggressive goals are backed by government mandates as well as a law that requires the phase-in of flex-fuel technology (E85) in all new gasoline-fueled vehicles starting in 2012. The requirement begins with 60 percent of small cars (2000 cubic centimeters engine displacement or less) in 2012 and extends to larger passenger vehicles the following year. By 2016 all new passenger vehicles manufactured or imported into Colombia must incorporate flex-fuel technology.

¶5. Biofuels are a priority for the Colombian government. According to Environment Minister Carlos Costa and other senior government officials, Colombia's biofuels policy supports three major objectives: 1) create jobs in rural and post-conflict zones; 2) remain self-sufficient as an energy producer; and 3) protect the environment while reducing Colombia's carbon footprint. Given the high unemployment rate (11.7 percent in September) and its desire to support an ambitious agreement at the Copenhagen Climate Change Summit, Colombia is likely to continue its biofuels policy.

¶6. Aerocivil (Colombian FAA), with U.S. Trade and Development Agency (TDA) funds, is currently developing a study on the potential application of renewable energy sources to navigational aids at locations in different parts of the country, replacing diesel-fired generators.

Wind Opportunities

¶7. Colombia has an estimated wind power potential of 21 gigawatts (GW) in the northeast state of La Guajira, which is home to class 7 winds (i.e. over 10 meters per second), according to local analysts. Colombia's installed wind capacity totals 19.5 MW. Fifteen windmills make up the Jepirachi Wind Project, which the Medellin Public Utility (EPM) company developed under a World Bank carbon finance mechanism (Prototype Carbon Fund). ISAGEN, Colombia's third largest power generation company, is planning to develop a 32 MW wind farm five kilometers from the EPM project. (Note: ISAGEN is state-owned, but plans to sell its 57 percent of the company by early 2010 to raise capital for country-wide infrastructure projects. End Note.)

¶8. The ISAGEN wind farm will be split into 12.5 and 19.5 MW parks to avoid a Colombian regulation that requires any electricity provider of 20 MW or more to be centrally dispatched. This regulation is a disincentive for the development of large wind farms, which cannot produce a constant level of electricity 24 hours/365 days per year. The government is considering a revision to this regulation, but is facing opposition from representatives from thermal, coal and hydroelectric power plants.

Geothermal Prospects

¶9. The Colombian Mining Service and Geological Survey has

identified three areas in Colombia with strong geothermal power potential: 1) near the Azufral volcano, Narino state; 2) near the Chiles volcano, Narino state; and 3) Paipa, Boyaca state. The U.S. Trade and Development Agency (TDA) has funded a feasibility study to support the development of a 50 MW geothermal power generation project with ISAGEN. After completion of the study, ISAGEN has moved forward with additional funding from the Inter-American Development Bank to conduct further geological studies. ISAGEN plans to begin drilling in 2011. Post learned recently that the Medellin Utilities Company (EPM) is also interested in developing geothermal resources and may request TDA assistance.

Hydroelectric Projects

¶10. According to GOC figures, hydroelectric power currently accounts for 78 percent of Colombia's electricity generation

(13,600 MW). More than 3,000 MW of additional capacity is under construction at six new plants scheduled for completion by 2018. Colombia sells excess capacity to regional neighbors, including Venezuela and Ecuador, and plans to sell additional capacity (up to 300 MW) to Panama. A longer term project envisions providing electricity to the Caribbean, notably Dominican Republic and Puerto Rico, via submarine cables.

Waste-to-Energy

¶11. In March 2009 during the Inter-American Development Bank annual conference, the Embassy's Commercial Section coordinated a meeting between TDA representatives and the manager of Medellin's solid waste management company (EVM) and the President of Medellin's public utilities company (Empresas Publicas de Medellin) to discuss a potential waste-to-energy project. The Colombians are developing prefeasibility studies and a solid waste characterization assessment prior to making a request for TDA feasibility study funds.

Memorandum of Understanding

¶12. The United States and Colombia signed a memorandum of understanding in September 2008 to advance cooperation on renewable energy by promoting research exchanges, alternative development activities, investment in clean energy, and the alignment of biofuels standards and codes. To date, State Department and U.S. Department of Agriculture funds have supported exchanges of experts on sustainable biofuels development. Additional areas of interest are being reviewed to support renewable energy initiatives and climate change-related programs.

¶13. Colombia supports President Obama's Energy and Climate Partnership of the Americas and has shown an interest in taking a leadership role in one or more areas: Biodiesel, Public Sector Reform in the Energy Sector, Second Generation Biofuels, and Long Distance Electricity Transmission.

Investment Opportunities for USRG Emerging Market Fund

¶14. Colombia provides incentives for the development of renewable power generation, clean fuels, and renewable energy value chains. Many of the ongoing and proposed projects will be asset-focused, particularly since many of the technologies are produced outside of Colombia. Wind projects are largely asset-focused and have low windmill technology risk (energy distribution is more complicated). Development of geothermal projects are largely dependent upon the appropriate feasibility, geological, and drilling studies. Biofuels projects in the ethanol and biodiesel areas are capital intensive, concentrated on refineries and infrastructure. Second generation biofuels have a great potential for investment opportunities, but the technology and scope are still undeveloped in Colombia. Regarding cash flows, the majority of projects listed above are financed by established private sector companies. That said, additional funding from investment funds is always welcome depending on the structured agreement.

¶15. The transfer of clean energy expertise to Colombian enterprises is a key bargaining chip in offering investments in the renewable energy sector. Securing management positions in project companies and control of strategic decision-making is probably more difficult to achieve in large companies and trade associations, which are the primary backers of the larger-scale renewable energies. There are small to medium size companies in renewable energies, but their focus is primarily in wind and less developed biofuels, such as jatropha, algae, and yucca ethanol.

¶16. There is a need for capital investments in the renewable energy sector, according to the National Biofuels Federation and government officials. Colombia continues to grow its renewable energy sector and has already reaped benefits from carbon credits. The World Bank, IDB, and the Andean Development Corporation (CAF) have helped finance several projects in Colombia's renewable energy sector. U.S. investors also have shown interest in funding local projects.

¶17. Per reftel request, Embassy contacts were not fully aware of the USRG Emerging Market Fund, nor did they have an opinion about the fund manager, US Renewables Group. Colombia's economic development plans appear consistent with the objectives of OPIC's investment fund program.

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